

NOTES ON THE GENUS *PROCTACANTHUS* WITH THE
DESCRIPTIONS OF TWO NEW SPECIES (DIPTERA:
ASILIDAE)

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Proctacanthus is a genus of large robber flies, the majority of species of which are found in the New World. Practically all the species with which I am familiar inhabit dry fields or pastures, several being restricted to dry sandy plains.

In 1923, I published a short article (*Psyche*, Vol. XXX, No. 2, April, 1923, pp. 41-45.) dealing with the food habits of two species (*Proctacanthus rufus* Willist. and *P. brevipennis* Wied.) occurring in the latter situations. I did not mention in the article that the species concerned were identified by myself by comparison with specimens determined by Mr. C. W. Johnson.

Since the publication of this paper, I discovered that the specimens, determined as *P. rufus* Willist. would not fit the description of this species as given by Hine (*Annals Ent. Soc. Am.* Vol. IV, pp. 153-172. 1911) but rather would run to the next species given as *rufiventris* Macq. The principal differences between the two are cited by Hine as being the enlarged hypopygium and uniform red thorax in *rufus*, against the darker thorax with nearly black stripes and spots and the narrow hypopygium (narrower than the last segment) of *rufiventris*.

Unfortunately, no mention is made of the latter character in Williston's original description which fits, as far as it goes, the specimens which I had noted as *rufus*.

In August 1925, I collected a species of *Proctacanthus* in the sandy areas along the Rio Grande near Albuquerque, N. Mexico. These specimens agreed with Hine's description of *rufus*, and differed as noted from the New England specimens. Since then I have examined a number of collections from states on the Atlantic Coast from South Carolina north to Maine and have found plenty of specimens of what Hine describes as *rufiventris*, but none from this region of what he describes as *rufus*. Now Williston's specimens were from Massachusetts and North

Carolina, and—as the specimens taken in these regions fit his description—it is very probable that it was this species with which he was dealing. The name *rufus* should, therefore, be applied to the eastern species with the dark thorax and narrow hypopygium. The western species (which, however, comes as far east as Ohio and Kentucky) with the uniform light red thorax and enlarged hypopygium is a new species. I should note that this designation of “Eastern” and “Western” species is more or less arbitrary. I have seen specimens of Williston’s *rufus* from Oklahoma.

I am, therefore, proposing a new name for Hine’s *P. rufus*. I take pleasure in naming this species *Proctacanthus hinei* in honor of this worker who has contributed so much to the knowledge of this interesting family of flies in this country.

***Proctacanthus hinei* new species.**

♂ Total length 33 mm. Dull reddish species with genitalia from above wider than last abdominal segment. Antennæ reddish with black bristles. Facial gibbosity prominent, dull red. Proboscis upturned at tip; black above, red beneath. All hairs of head (mystax, beard, palpal hairs) white, some with faint yellowish tinge, particularly in mystax. A few black bristles on vertex and occiput. Thorax and legs dull reddish. Legs with black bristles and spines. Mass of white hairs on anterior part of pro-coxa. Bristles of scutellum and posterior dorsum of thorax black. Fine hairs on anterior dorsum of thorax also black. Pleuræ with fine whitish bloom. A few black bristles on meso— and meta—coxæ. Tuft of hairs in front of halteres pale yellowish. Wings nearly clear with light, reddish veins. Abdomen yellowish-red, except first tergite and anterior half of second which are very dark red—practically black. Anterior four or five incisures darker than rest of abdomen. Sides and venter of anterior portion of abdomen with thin, white pile. A few black hairs on sides of first tergite. Genitalia yellowish-red with fine hairs, some black, some pale yellowish. Genitalia wider than last abdominal segment, the appendages from dorsal view wide at base, narrowing toward apex.

Holotype ♂ Albuquerque, N. Mexico. Aug. 3, 1925. In Coll. S. W. Bromley.

I have never seen a specimen of the true *P. rufiventris* Macq. from the United States. The species was originally described from San Domingo, but the description is very meagre and might very well apply to Williston's *rufus*. I have seen, however, specimens of what I take to be *rufiventris* from Haiti, the Dominican Republic, Cuba, and the Bahamas, and it is quite different from any species I have seen from the United States, being more closely related to *P. fulviventris* Macq. from Florida than to *P. rufus*. The principal points of difference distinguishing it from the latter are the yellow hairs on the scutellum (in *rufus* they are black), the thick yellow pile along the sides of the abdomen near its base, the general golden color of the thoracic vestiture, and the smaller average size. The black markings on the thorax are also very decided, contrasting with the general reddish color of the thorax. *Fulviventris* Macq. has the femora black. In the present species they are red.

Macquart's name *rufiventris*, however, can not stand, as the same species was, beyond the slightest doubt, described from San Domingo by Olivier in 1789 (Encyclop. Methodique IV, 263.4) as *Asilus vittatus*. Macquart's description of *rufiventris* in *Dipteres Exotiques* (I, 2, 123), appeared in 1838. E. Lynch—Arribalzaga described a species of *Proctacanthus* from Misiones, giving it the name of *vittatus* in 1880, (*Annal. Soc. Cient. Argent.*, IX. 261. 29), but I have not seen the description of this species.

In recapitulation, therefore, we have the following established species and synonymy.

1. **Proctacanthus vittatus** Olivier.
Syn: *Proctacanthus rufiventris* Macquart.
2. **Proctacanthus rufus** Williston.
Syn: *Proctacanthus rufiventris* Hine.
3. **Proctacanthus hinei** new species.
Syn: *Proctacanthus rufus* Hine.

In studying a number of Asilidæ from the Cornell University collection, kindly loaned me through the good offices of Drs. Johannsen and Bradley, I came across an interesting new species of *Proctacanthus* from Southern Georgia, related to *P. brevipennis*

Wied. but lighter in color and averaging larger. The abdomen is comparatively longer and the femora are uniformly reddish. The proboscis is longer and more slender than in *brevipennis* and the palpal hairs are all white.

Proctacanthus gracilis new species.

Total length, 26-30 mm. ♂ Proboscis slender, black. Palpi black. Hairs of palpi mystax, beard and post-genæ nearly white with very pale yellowish tinge. Antennæ dark reddish, second segment lightest. Occipital bristles and a few on vertex black. Frons light yellowish pruinose. Thorax reddish in ground color, with dark red median line and lateral vittæ and covered, except the median line and vittæ, with pale yellowish bloom. Coxal hairs and tuft in front of halteres pale yellow. Pronotal bristles, bristles on posterior part of mesonotum and scutellum black. Legs reddish with black bristles and fine pale hairs, the tarsi darker in color. Wings nearly hyaline with faint reddish tinge. Veins reddish. Ground color of abdomen reddish, but covered with pale yellowish bloom and fine pubescence. Side bristles on first abdominal segment black. There is an obscure brownish area in the center of each segment forming a broken median line along the dorsum of the abdomen.

♀ Same as male, but with blackish ovipositor with circlet of black spines.

Holotype ♂. Spring Creek, Decatur County, Ga. July 16-19, 1912. Cornell U. lot 482 sub. 132. Coll. J. C. Bradley. Allotopotype ♀, same date, lot and sub. 12 paratypes. All topotypes but two. Of the latter, one bears the label "Georgia," and the other "Billy's Island, Okefenokee Swamp, Ga., June 1912."